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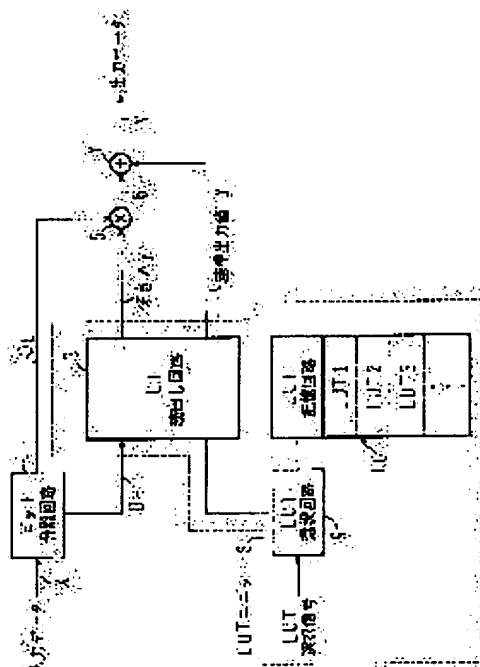
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## (54) GAMMA CORRECTION FOR DIGITAL IMAGE

### (57)Abstract:

**PURPOSE:** To simplify a look-up table (LUT), to simplify a transforming method for gamma correction by unnecessitating high-order input bit data for calculating an output value and to accelerate processing speed by making the folding of a transformation function coincident with the change of the high-order input bit data.

**CONSTITUTION:** An LUT storage circuit 10 stores plural gamma correction curves. Corresponding to the kind or purpose of an image, an LUT select signal is inputted to an LUT selecting circuit 9, and desired one LUT is selected out of plural LUTs 10. An LUT reading circuit 3 refers to a reference signal (y) and inclination  $\Delta y$  from the selected LUT with high-order bit data D of input data as an index. A multiplying circuit 5 multiplies the inclination  $\Delta y$  and a low-order bit D and calculates an output 6, and the result is added with the reference value (y) by an adding means 7 so as to provide a gamma correcting output Y. Thus, simple operation processing can be performed and accelerated, and a device can be simplified by reducing storage capacity and unnecessitating comparative arithmetic for area decision.



## LEGAL STATUS

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